CHAPTER 57 NEW TANK PERFORMANCE STANDARDS

Secs.

5700 NEW UNDERGROUND STORAGE TANK SYSTEMS - GENERAL PROVISIONS

5700.1 The owner and operator of each existing or new petroleum UST system, except for heating oil USTs, shall ensure that the UST system complies with one (1) of the following:

(a) UST systems, installed after November 12, 1993, shall meet the new UST system performance standards for petroleum USTs set forth §5701 of this chapter at the time they are installed;

(b) Existing USTs installed on or before December 22, 1988, shall meet the upgrade requirements set forth in Chapter 58 on or before December 22, 1998;

(c) Existing UST systems installed after December 22, 1988, and prior to November 12, 1993, shall be in compliance with the federally-required new tank performance standards set forth in 40 CFR §280.20. (UST systems in this category which have not met the federally mandated standards must be immediately upgraded to meet these standards, permanently closed in accordance with Chapter 61 or replaced with a UST system which meets the District's new tank performance standards set forth in §5701); or

(d) Existing UST systems installed on or before December 22, 1988, which are not upgraded by December 22, 1998, must meet the permanent closure requirements set forth in Chapter 61 by December 22, 1998, and must also meet any applicable requirements for corrective action set forth in Chapter 62.

5700.2 The owner or operator of each new hazardous substance UST system, installed after November 12, 1993, shall ensure that the UST system which is installed meets the new UST performance standards for hazardous substance USTs set forth in §5702.

5700.3 Except as provided in §§5700.4 and 5700.5, the owner or operator of each existing hazardous substance UST system, shall ensure that no later than December 22, 1994, the UST system:

(a) Meets the new UST performance standards for hazardous substance USTs set forth in §5702; or

(b) Meets the permanent closure requirements set forth in Chapter 61, including applicable requirements for corrective action set forth in Chapter 62.

5700.4 Existing hazardous substance UST systems which were installed or upgraded prior to November 12, 1993, and have complied with the federally-required new tank performance standards set forth in 40 CFR §280.20 and the secondary containment requirements set forth in 40 CFR §280.42(b) (July 1, 1993 edition of the *Code of Federal Regulations*) by November 12, 1993, are exempt from the requirements of §5700.3. The tanks shall be subject to the requirements of 40 CFR §§280.20 and 280.42(b) and to enforcement action for failure to comply with the requirements, including closure.

5700.5 Hazardous substance UST systems installed after December 22, 1988, and prior to November 12, 1993, which have not met the federally mandated standards set forth in 40 CFR §§280.20 and 280.42(b) shall be permanently closed in accordance with Chapter 61, effective immediately. If replaced, they shall be replaced with an UST system which meets the District's new tank performance standards for hazardous substance USTs set forth in §5702.

5700.6 Whenever an owner or operator installs a new heating oil tank, having a capacity of one thousand and one hundred (1,100) gallons or more, the heating oil tank shall meet the requirements of §5703. New heating oil tanks shall also comply with §§5700.7, 5700.9 through 5700.11, 5704, 5705, and 5706.

5700.7 In addition to meeting the requirements of this chapter, the owner and operator of each UST system located within one hundred feet (100 ft.) (measured horizontally) from the outside wall of a subsurface transit structure shall meet the requirements of the *BOCA National Fire Prevention Code,* the *D.C. Fire Prevention Code Supplement,* and the *National Fire Protection Association (NFPA) 130* pertaining to fixed guideway transit systems, as well as any applicable legal requirements of the Washington Metropolitan Area Transit Authority.

5700.8 In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, each owner and operator of an underground storage tank or UST system installed after December 22, 1988, shall ensure that each tank meets the applicable requirements set forth in this chapter.

5700.9 Each tank shall be properly designed and constructed, and any portion underground that routinely contains a regulated substance shall be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified by the Director, and in accordance with the *BOCA National Fire Prevention Code* and the

D.C. Fire Prevention Code Supplement and shall meet the requirements of this chapter.

5700.10 Underground piping that conveys regulated substances under pressure shall be equipped with an automatic line leak detector in accordance with §6013.2 of this chapter.

5700.11 Alternative tank construction and corrosion protection may be approved by the Director, if the tank construction and corrosion protection are determined by the Director to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the other provisions of this chapter.

AUTHORITY: Unless otherwise noted, the authority for this chapter is §13 of the District of Columbia Underground Storage Tank Management Act of 1990, as amended, D.C. Law 8-242, D.C. Code §6-995.1 *et seq.* (1995 Repl. Vol.), Mayor's Order 91-160 dated October 9, 1991); and the District of Columbia Water Pollution Control Act of 1984, D.C. Law 5-188, D.C. Code 6-921 (1995 Repl. Vol.), Mayor's Order 85-152 dated September 12, 1985).

SOURCE: Final Rulemaking published at 40 DCR 7835, 7851 (November 12, 1993).

5701 NEW PETROLEUM UNDERGROUND STORAGE TANK SYSTEMS

5701.1 Except as provided in §5700.11, each new petroleum underground storage tank, except for heating oil USTs, shall be constructed of:

(a) Fiberglass-reinforced plastic with double-walled construction or other secondary containment system as set forth in §§5701.4, 5701.5, and 5701.6;

(b) Steel-fiberglass-reinforced plastic composite with double wall construction or other secondary containment system as set forth in §§5701.4, 5701.5, and 5701.6; or

(c) Steel with double-walled construction or other secondary containment system as set forth in §§5701.4, 5701.5 and 5701.6, and the tank shall be cathodically protected in accordance with the requirements of §5701.2.

5701.2 Each steel tank shall be cathodically protected by being coated with a suitable dielectric material, and in addition:

(a) Field-installed cathodic protection systems shall be designed by a corrosion expert; and

(b) Impressed current cathodic protection systems shall be designed to allow determination of current operating status as required by §5901.6.

5701.3 Each cathodic protection system shall be operated and maintained in accordance with §5901.

5701.4 Secondary containment systems shall be designed, constructed, and installed to do the following:

(a) Contain regulated substances released from the tank system until they are detected and removed;

(b) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and

(c) Check for evidence of a release at least every thirty (30) days.

5701.5 Double-walled tanks shall be designed, constructed, and installed to do the following:

(a) Contain a release from any portion of the inner tank within the outer wall; and

(b) Detect the failure of the inner wall.

5701.6 External liner systems (including vaults) shall be designed, constructed, and installed to do the following:

(a) Contain one hundred percent (100%) of the capacity of the largest tank within its boundary;

(b) Prevent the interference of precipitation or ground-water intrusion with the ability to contain or detect a release of regulated substances; and

(c) Surround the tank completely and be capable of preventing lateral, as well as vertical migration of regulated substances.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7853 (November 12, 1993).

5702 NEW HAZARDOUS SUBSTANCE UNDERGROUND STORAGE TANKS SYSTEMS

5702.1 Except as provided in §5700.11, each new hazardous substance underground storage tank shall be:

(a) Constructed of fiberglass-reinforced plastic , steel-fiberglass-reinforced plastic composite, or steel;

(b) If constructed of steel, shall be cathodically protected in accordance with the requirements of §5702.2 and;

(c) Shall be of three hundred sixty degree (360°) double wall construction as set forth in §5702.6.

5702.2 Each steel tank shall be cathodically protected by being coated with a suitable dielectric material, and in addition:

(a) Field-installed cathodic protection systems shall be designed by a corrosion expert; and

(b) Impressed current cathodic protection systems shall be designed to allow determination of current operating status as required by §5901.6.

5702.3 Each cathodic protection system shall be operated and maintained in accordance with §5901.

5702.4 Double-walled tanks shall be designed, constructed, and installed to do the following:

(a) Contain a release from any portion of the inner tank within the outer wall until detected and removed;

(b) Detect the failure of the inner or outer wall; and

(c) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7854 (November 12, 1993).

5703 NEW HEATING OIL TANKS SYSTEMS

5703.1 Except as provided in §5700.11, each new heating oil underground storage tank, having a capacity of one thousand and one hundred (1,100) gallons or more, installed after November 12, 1993, whether of single or double-walled construction, shall be constructed of the following:

(a) Fiberglass-reinforced plastic;

(b) Steel-fiberglass-reinforced plastic composite; or

(c) Steel and shall be cathodically protected in accordance with the requirements of §5703.2.

5703.2 Each steel tank shall be cathodically protected by being coated with a suitable dielectric material, and, in addition:

(a) Field-installed cathodic protection systems shall be designed by a corrosion expert; and

(b) Impressed current cathodic protection systems shall be designed to allow determination of current operating status as required by §5901.6.

5703.3 Each cathodic protection system shall be operated and maintained in accordance with §5901.

5703.4 Secondary containment systems shall be designed, constructed, and installed to do the following:

(a) Contain regulated substances released from the tank system until they are detected and removed;

(b) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system;

(c) In accordance with §6003.7, check for evidence of a release at least every thirty (30) days.

5703.5 Double-walled tanks shall be designed, constructed, and installed to do the following:

(a) Contain a release from any portion of the inner tank within the outer wall; and

(b) Detect the failure of the inner wall.

5703.6 External liner systems (including vaults) shall be designed, constructed, and installed to do the following:

(a) Contain one hundred percent (100%) of the capacity of the largest tank within its boundary;

(b) Prevent the interference of precipitation or ground water intrusion with the ability to contain or detect a release of regulated substances; and

(c) Surround the tank completely and be capable of preventing lateral, as well as vertical migration of regulated substances.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7855 (November 12, 1993).

5704 PIPING FOR NEW UST SYSTEMS

5704.1 The piping that routinely contains regulated substances and is in contact with earthen materials shall be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory, as specified by the Director and in accordance with the *BOCA National Fire Prevention Code* and the *D.C. Fire Prevention Code Supplement.*

5704.2 Except as provided in §5704.7, underground storage tank system piping shall be constructed of:

(a) Fiberglass-reinforced plastic; or

(b) Steel and shall be cathodically protected in accordance with the requirements of §5701.3.

5704.3 Steel UST piping shall be cathodically protected by being coated with a suitable dielectric material, and, in addition:

(a) Field-installed cathodic protection systems shall be designed by a corrosion expert; and

(b) Impressed current cathodic protection systems shall be designed to allow determination of current operating status as required by §5901.6.

5704.4 Each cathodic protection system shall be operated and maintained in accordance with §5901.

5704.5 Except as provided in §5704.7, underground piping for hazardous substance USTs, and pressurized underground piping for petroleum USTs including heating oil USTs, shall be equipped with secondary containment, that satisfies the requirements of §5701.4 of this chapter.

5704.6 For the purposes of this section, "pressurized underground piping" includes the dispenser sump, pump sump, pressurized return lines, and remote fill lines.

5704.7 Secondary containment shall not be required for vent pipes, Stage II vapor recovery pipes or vertical fill pipes.

5704.8 Other materials and construction techniques may be used for UST piping if the piping construction and corrosion protection are determined by the Director to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the other provisions of this section.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7857 (November 12, 1993).

5705 SPILL AND OVERFILL PREVENTION EQUIPMENT FOR NEW USTS AND UPGRADED USTS

5705.1 Except as provided in §5705.3, to prevent spilling associated with the transfer of regulated substances to an UST system, each owner and operator must use spill prevention equipment (such as a spill catchment basin) that will prevent release of regulated substances when the transfer hose is detached from the fill pipe.

5705.2 Except as provided in §5705.3, to prevent overfilling associated with the transfer of regulated substances, each owner and operator shall use overfill prevention equipment that does the following:

(a) Automatically shuts off flow into the tank when the tank is no more than ninety-five percent (95%) full;

(b) Alerts the transfer operator when the tank is no more than ninety percent (90%) full by restricting the flow into the tank or triggering a high-level alarm; or

(c) For tanks with a capacity of four thousand (4,000) gallons or more, equipment which will restrict flow thirty (30) minutes prior to overfilling, or automatically shut-off flow into the tank so that none of the fittings located on the top of the tank are exposed to product due to overfilling.

5705.3 An owner and operator shall not be required to provide and use the spill and overfill prevention equipment specified in this section if:

(a) Alternative equipment is used that is determined by the Director to be no less protective of human health and the environment than the equipment specified in the other provisions of this section; or

(b) The UST system is filled by transfers of no more than twenty-five (25) gallons at one time.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7858 (November 12, 1993).

5706 INSTALLATION OF NEW UST SYSTEMS

5706.1 Each UST system, including all tanks and piping, shall be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions, as specified by the Director and in accordance with the *BOCA Fire Prevention Code* and the *D.C. Fire Prevention Code Supplement.*

5706.2 Each owner and operator shall ensure that each UST is installed by an installer that meets one (1) or more of the following methods of certification:

(a) The installer has been certified for the installation of the UST system components by the tank and piping manufacturers;

(b) The installer has been certified or licensed by the Director; or

(c) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation and design.

5706.3 For each UST installation, all work listed in the manufacturer's installation checklist for each item shall be completed.

5706.4 Each installation shall be inspected and approved by the Director and the District of Columbia Fire Chief prior to completion of installation.

5706.5 A precision test shall be performed upon installation of an UST system prior to its use, except as provided in §5706.6.

5706.6 Only an air test shall be required when a double walled tank with an interstitial monitor is installed.

5706.7 The owner and operator shall ensure that a certification of compliance in accordance with §§5706.2 and 5706.3 is provided on the UST notification form approved by the Director in accordance with §5600 of this chapter.

SOURCE: Final Rulemaking published at 40 DCR 7835, 7858 (November 12, 1993).